



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------------|------------------------|
| 10/735,792 | 12/12/2003 | Richard L. Garrison | 122972.0001.000 | 3879 |
| 7590 | 06/20/2007 | | | |
| TARIQ KHAN 2322 SAXON DRIVE HOUSTON, TX 77018 | | | EXAMINER DEMILLE, DANTON D | |
| | | ART UNIT 3771 | PAPER NUMBER | |
| | | | MAIL DATE 06/20/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|----------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/735,792 | GARRISON ET AL. |
| | Examiner Danton DeMille | Art Unit 3771 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 27 April 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-77 is/are pending in the application.
 4a) Of the above claim(s) 73-77 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-72 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 1-72 in the reply filed on 27 April 2007 is acknowledged.

Claim Rejections - 35 USC § 112

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no clear antecedent basis for "the respiratory assist function".

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the straps connecting all cuffs to each other as recited in claim 20 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 10, 18, 45-49 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Halperin et al. '674 or Newman et al.

Halperin teaches a removable wrap 10, a plurality of channels 16, 18 in the wrap and a drive system 20. Regarding claim 2 a feedback system 28 for monitoring the EKG.

Newman teaches a removable wrap that has a plurality of channels 12 and 14 and a drive system for stimulating the wrap to expand and contract. Regarding claim 2 a feedback system 240 for monitoring the EKG.

Claim 9 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Newman et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-8, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Halperin et al. or Newman et al. in view of Lurie et al. '257.

Lurie teaches the benefit of monitoring various physiologic parameters of the patient during CPR including temperature sensor, blood gasses and pH, column 8, lines 17-29. It would have been obvious to one of ordinary skill in the art to modify either Halperin or Newman to also monitor the patient's temperature, blood gasses and pH as taught by Lurie for a more accurate assessment of the patient's condition.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Halperin et al. in view of Weisfeldt et al.

Weisfeldt teaches the benefit of adding an abdominal wrap to apply abdominal compression. It would have been obvious to one of ordinary skill in the art to modify Halperin to include an abdominal wrap as taught by Weisfeldt to provide the added benefit of abdominal compression.

Claims 12, 16, 17, 26, 27, 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Halperin et al. or Newman et al. in view of Zheng et al. '226.

Zheng teaches the benefit of including pressure cuffs encircling the extremities of the subject. It would have been obvious to one of ordinary skill in the art to modify Halperin or Newman to include cuffs around the extremities as taught by Zheng to improve counterpulsation.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 12 above, and further in view of Rastegar et al.

Rastegar teaches the entire enclosure can be made transparent in paragraph 49. It would have been obvious to one of ordinary skill in the art to further modify Halperin or Newman to use a transparent enclosure as taught by Rastegar in order to view under the enclosure.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 12 above, and further in view of Hall et al.

Halperin and Zheng appear silent with regard to the details of the makeup of the bladder. Hall teaches that the bladder can be made of elastic material. It would have been obvious to one of ordinary skill in the art to further modify Halperin or Newman to use a pressure cuff made of elastic as taught by Hall to provide the details of the structure of the bladder.

Claims 12, 15, 16, 17, 26, 27, 28, 59, 60, 61, 62, 71, 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Halperin et al. or Newman et al. in view of Rosett.

It would have been obvious to one of ordinary skill in the art to further modify Halperin or Newman to include pressure cuffs as taught by Rosett to better assist the heart by propelling the venous blood of the body toward the heart.

Claims 1, 12, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Brunt '479 in view of Hansen and Rosett.

Van Brunt teaches a removable vest 42 and a drive system for stimulating the wrap to expand and contract 12a. A vest pressure transducer 52 is taught to feedback the pressure in the vest and sends the signal to the phase shift network 54 to maintain the proper pressure within the lungs of the patient. The chest wall force applicator 12a maintains a high frequency vibration within the lungs of the patient. While Van Brunt appears silent with regard to the details of the

vest, Hansen teaches a high frequency chest wall vibrator that includes channels 61-74. Rosett teaches the benefit of increasing circulation throughout the body. It would have been obvious to one of ordinary skill in the art to modify Van Brunt to use the vest of Hansen as an obvious equivalent alternative vest for performing the same function and to include the inflatable pressure garment of Rosett to improve overall circulation.

Claims 20, 21, 22, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 15 above, and further in view of Arkans.

Arkans teaches including straps 62 for providing a continuous compression system. It would have been obvious to one of ordinary skill in the art to further modify the references as applied to claim 15 and include straps on the cuffs as taught by Arkans to form a continuous compression sleeve system. Regarding claim 24, Arkans teaches water or liquid as an alternative to gas. It would have been obvious to one of ordinary skill in the art to further modify the references applied to claim 15 and use water as the medium as taught by Arkans to reduce the amount of compressible air to be used.

Claims 25, 29, 30, 31, 32, 63, 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 21 above, and further in view of Zheng et al. '540.

It would have been obvious to one of ordinary skill in the art to further modify the references as applied to claim 21 and cool the temperature of the gas as taught by Zheng because the temperature of the gas can become heated produced by the air compressor.

Claims 42, 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 15 above, and further in view of Schock et al.

The prior art may teach the EKG electrodes as being placed on the body however, Schock teaches the convention of include the electrodes on the bladders, column 7, lines 25-32. It would have been obvious to one of ordinary skill in the art to further modify the references as applied to claim 15 and place the electrodes on the bladder as taught by Schock so that all electrodes are located on the device rather than having a separate arrangement.

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 43 above, and further in view of Van Brunt et al. '479.

It would have been obvious to one of ordinary skill in the art to further modify the references to apply high frequency vibration as taught by Van Brunt to provide the added benefit of facilitating pulmonary toilet.

Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Shaffer et al.

Shaffer teaches the convention of scrubbing the gas through scrubbing device 38 and recycling the gas, column 24, lines 11-21. It would have been obvious to one of ordinary skill in the art to further modify the references as applied to claim 1 to recycle the expired air as taught by Shaffer to be more efficient.

Claims 51, 54, 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Faithfull et al.

Faithfull teaches partial liquid ventilation or total liquid ventilation including a CO₂ scrubber 424. It would have been obvious to one of ordinary skill in the art to further modify the references as applied to claim 1 and use breathable liquid and purification device as taught by

Faithfull to provide the benefits of administering fluorochemicals and to recycle the purified liquid.

Claims 50, 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Hochen et al.

Hochen teaches even underwater there is need to assist ventilation. It would have been obvious to one of ordinary skill in the art to further modify the references as applied to claim 1 for use underwater as taught by Hochen to assist breathing underwater.

Claims 1, 50, 53, 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monson et al. in view of Shaffer et al.

Monson teaches a removable wrap 16 with a plurality of channels 14 and a drive system for expanding and contracting the wrap. Including a scrubber for purifying the air to recycle the air would have been an obvious provision. Shaffer exemplifies such a convention. It would have been obvious to one of ordinary skill in the art to further modify Monson and scrub the air for recycle as taught by Shaffer to be more efficient.

Claims 65-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 59 above, and further in view of Weisfeldt et al.

Weisfeldt teaches a T connection for separating negative or expiratory path from the positive or inspiratory path. Such would have been an obvious provision in order to control the two separate flow paths.

Claims 23, 33-41, 57, 58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danton DeMille whose telephone number is (571) 272-4974. The examiner can normally be reached on M-F from 8:30 to 6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu, can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

13 June 2007

/Danton DeMille/
Danton DeMille
Primary Examiner
Art Unit 3771